



An Energy Efficiency Workshop & Exposition  
Palm Springs, California

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An Energy Efficiency Workshop & Exposition  
Palm Springs, California

***Project Financing  
Appropriations and Private Financing***

A Look Back:  
The Fermilab/DOE Experience  
Steve Krstulovich – Program  
Mgr.



## *Historical Overview*

- Energy Project Funding Approaches:
    - 1988-94: Direct Appropriations (IHEM)
    - 1994-96: IHEM and some FEECAP
    - 1996-98: Site specific ESPC & some IHEM
    - 1998-2001: UESC/Utility Incentive Program
    - 2001-02: UESC and some IHEM
- Fermilab has maintained an aggressive award winning energy program each year

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3



## *Direct Appropriations*

- DOE project funding 1988-96 “In-House Energy Management Program” (IHEM)
- 30 projects completed – Cost \$9 Million
- Annual Energy Savings \$1.8 Million
- “Buildings” energy down 46% from '85
- Issue 1: Trouble developing new ideas
- Issue 2: Slow Project implementation

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4



## *Operating Funds*

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- Direct funding 1994-96 “Fermilab Employee Energy Conservation Awards Program” (FEECAP)
- Employee awards up to \$5K for ideas
- 126 entries submitted
- About 20% implemented and awarded
- Low/No Cost ideas funded promptly
- Costly ideas await 2-yr IHEM fund cycle

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5



## *ESCo Third Party Financing*

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- Third Party financing 1996-98 “Energy Saving Performance Contracting (ESPC)”
- Direct Appropriations curtailed (IHEM)
- RFP for \$16M Chiller Plant Upgrade
- 12 responses – wide quality range
- Legal review questions stalled award – DOE’s “Super-ESPC” program has since streamlined this process

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6



## *Utility Third Party Financing*

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- Third Party financing 1998-02 “ Utility Energy Savings Contracting” (UESC)
- Streamline and simple Vehicle
- Over 100 projects
- About \$60M under contract
- Comprehensive Site Energy Audits
- Submittals on new Limited Direct Appropriations

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7



## *Lessons Learned*

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- Audits have identified many new ideas
- Lab personnel are active contributors
- Financing makes implementation rapid
- Master-planning with non-limited funds
- 5-year implementation strategy
- Value engineered cost avoidances
- Significant mission support

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8